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ABSTRACT

This chapter advocates the use of naturalistic inquiry as a method for undertaking unobtrusive research in instructional development. The advantages of naturalistic inquiry are listed, and it is suggested that these advantages make this form of research very useful to the field of instructional development. It is argued that both naturalistic inquiry and instructional development are focused towards "real world" problem solving, are predisposed to systematic inquiry, and encourage both long term interaction and the development of interpersonal and analytic skills. It is also suggested that the incorporation of naturalistic inquiry into the sphere of instructional development research will serve to widen methodological horizons, expand the research training of instructional development students, and produce a higher quality of research. (14 references) (Author/EW)

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Chapter 26

Naturalistic Inquiry: An Alternative Methodology for Instructional Development Research

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For ID to become a vital force, much more knowledge must be accumulated. Much of this knowledge can be gained from a study of what we do as we carry out our development functions on a daily basis. A study of our activities, while working with clients and other colleagues, must be conducted through unobtrusive means. But most of the Research Methods courses we had in college were highly biased toward the use of obtrusive methods. Where can we find unobtrusive methodologies? Naturalistic Inquiry: An Alternative Methodology for Instructional Development Research addresses this question.

When confronted with perplexing problems, most instructional developers take some comfort in the results of future instructional and educational research. Calls for research into the many difficulties associated with the practice of instructional development are commonplace and leave the impression that answers, if not imminent, are "on the way." Many ID practitioners, faced with heavy service commitments, have withdrawn from research activities, leaving such matters to those who teach instructional development or educational psychology in the universities. These practitioners reason that eventually the research performed by these academicians will result in answers to difficult questions surrounding the psychology of learning, the prescription of precise instructional treatments, and the ID consulting process. Yet most of us would have to admit that the usefulness of most instructional and educational research has been disappointing. It is disheartening, especially when one considers the dollars and energy which have expended, how little of what we know is the result of systematic research. It is the thesis of this chapter that instructional developers and other educational researchers have embraced only a narrow range of classical research strategies; that these, taken alone, are often inappropriate for the questions at hand; and that naturalistic inquiry offers a methodology which may well prove appropriate.

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THE IMPACT OF TRADITIONAL EXPERIMENTAL DESIGN UPON ID RESEARCH

Instructional development is an applied activity which seeks to influence human behavior. As such, it shares with the social sciences an unfortunate research heritage--classical experimental design. Like researchers everywhere, those in education have been taught in graduate school the hallowed components of experimental design--control of confounding variables either through constancy or randomization; well defined, quantified dependent variables; careful manipulation of independent variables; tests for statistical significance of the difference among dependent variable means. Somewhat relaxed versions--quasiexperimental designs allowing non-random assignment to treatments--have received acceptance, but are undertaken apologetically and while retaining as many characteristics of classical design as possible. The "objectivity" and "rigor" of

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the classical approach are lauded; none of its shortcomings and misapplications are typically noted. No alternative strategies are offered. Graduate students in education leave school prepared to conduct only one type of inquiry and lacking in respect for any other. A recent analysis of the methods used in research published in the American Educational Research Journal revealed the predominance of traditional ANOVA designs with multivariate designs lagging far behind in number, and qualitative methods all but nonexistant (Willson, 1980). Unfortunately, classical or modified-classical experimental design is not well suited to the exploration of complex, human phenomena such as instructional development and learning or to the role adopted by most instructional developers. To understand why, adopt the perspective of a classical experimentalist and look at the characteristics of the instructional developer's research interests and of the instructional developer's role.

The experimentalist views the world as composed of variables. Divide the instructional developer's world into variables and then examine the nature of these variables and the conditions surrounding them. One factor that will be noticed immediately is that the number of variables impinging upon an ID research question is very large. Whether the developer's interest is in explaining learning or in examining the instructional development process, a plethora of relevant variables will be present in the arena. Assume as a working example an interest in examining the relative effectiveness of alternative instructional strategies. Just a short list of variables impinging on this question includes: learner characteristics--general ability, maturation level, specific aptitudes, cognitive style, attitude, motivation, and pre-knowledge; context variables--physical environment (a conglomerate variable in itself), instructional characteristics (with as many components as listed above for learners), interaction with other learners, school or institutional factors; outcome variables (possible dependent variables)--achievement at various cognitive levels, changes in attitude, longevity of effects, utility of learning outcomes. And this list doesn't include all the salient independent variables--the ones which describe the alternative instructional strategies themselves.

Remember, as classical experimentalists we must control all confounding variables either by keeping them constant across treatments or by randomizing their influence so that the size of their impact upon results can be estimated statistically (Guba, 1978); hence, random assignment of subjects to treatments, random assignment of instructors to treatments, etc., is mandated. Furthermore, continuing the example of the ID research problem described above, the relevant characteristics of the alternative instructional strategies--the independent variables--must be known in advance; after all, those are the factors that we as researchers are going to manipulate. Likewise, all important outcome variables--the dependent variables--must be known in advance; otherwise, we wouldn't know what to measure for future submission to statistical tests. Such is the traditional experimentalist's view of an I.D. research problem.

In judging the applicability of this experimental approach to instructional development research, two questions arise. One, how many instructional developers can abide by the classical rules in conducting an inquiry, and two, how advisable is it to attempt to do so?

The answer to the first question should be apparent and not in need of extensive discussion. Most instructional developers inhabit the 'real world' of instruction where experimental manipulation is difficult. Our consultant role provides us with influence upon instruction and instructors but not with control--not with the kind of control that would allow us to prescribe who would be exposed to what treatment, when, and under precisely what circumstances. So the answer to question one is "approaching zero," and we are forced to a compromise on classical design immediately.

The answer to the second question--how advisable is it to attempt to adhere to the rules of classical experimental design?--is more difficult and requires at least a brief examination of the nature of our attempts to meet the experimental ideal as best we can. Given that we can't abide by the stringent experimental rules that physical scientists can, how much of our research methodology is still determined by our attempts to accommodate the tenets of classical design, and what are the consequences of our design compromises?

One concession that some educational researchers make to the demands of classical design is to move research out of the real-world classroom and into the lab. (Psychologists will go even one step further and use non-human subjects.) The appeal of this "lab concession" is, of course, the control it allows over the physical environment, over the assignment of subjects to treatments, and over the details of exposure to treatments. The cost of this concession is in terms of external validity; that is, the results of such research are difficult to generalize "across times, settings, and persons" (Cook & Campbell, 1976). In other words, it is questionable whether results obtained under artificial lab conditions hold true under real-world instructional circumstances. Not much more needs to be said about the external-validity problem here since extensive discussions of threats to external validity exist in the literature. Bracht and Glass (1968) and Pereboom (1971) provide clear summaries for the reader unfamiliar with this issue.

Most educational researchers are wise to the severe generalizability problems posed by instructional research conducted in labs or otherwise atypical environments. Therefore, some control over the experimental environment is sacrificed and quasi-experiments are conducted. Campbell

and Stanley (1963) describe quasi-experiments as follows:

> There are many natural social settings in which the research person can introduce something like experimental design into his scheduling of data collection procedures (e.g., the when and to whom of measurement), even though he lacks the full control over the scheduling of experimental stimuli (the when and to whom of exposure and the ability to randomize exposures) which makes a true experiment possible. Collectively, such situations can be regarded as quasi-experimental designs.

In other words, quasi-experiments involve assessments conducted in intact classrooms or other naturally occurring situations where many of the variables cannot be controlled or manipulated by the experimenter. To the extent that the natural classrooms included in quasi-experiments are representative of classrooms to which the results of the research are generalized, the external validity of educational research--so jeopardized by laboratory experiments--is increased by the use of quasi-experiments. However, quasi-experiments have their own particular shortcomings; because so many variables in a natural setting cannot be controlled, the internal validity of experimental results is threatened. Internal validity has to do with the validity of cause-and-effect inferences within the experiment. Internal validity is high to the extent that one can be sure that the experimental outcomes are due to the effects of the independent variables rather than to other environmental variables or characteristics of the particular subjects involved. With so many variables uncontrolled in natural settings, however, quasi-experiments open a wide avenue to misinterpretation of the true causes of outcomes. According to Cook and Campbell (1976), "Instead of relying on radomization to rule out most internal validity threats, the (quasi-experimental) investigator has to make (all of the threats) explicit and then rule them out one by one. Therefore, internal validity is increased to the extent that the investigator is aware of all plausible, alternative explanations of his data besides the casual relationship he has hypothesized."

In the search for such alternative explanations, however, our classical experimental design tradition and training are a handicap. Because we are taught to specify all important independent and dependent variables in advance, as well as to state specific, a priori hypotheses regarding these variables. Most educational researchers are not likely to conduct their research in a way which will allow them to detect alternative explanations and unanticipated outcomes. Most researchers still conduct their investigations from a relative distance, selecting their outcome measures--quantifiable variables only--and the presumed relevant independent variables and covariates well in advance and focusing their attention upon these variables throughout the investigation. For example, many researchers are present in the classrooms under investigation only when the experimental measurements are being taken, precluding the observation of possibly-important attendant variables, outcomes, and explanations of results.

The foregoing section might be summarized as follows. Instructional development researchers have inherited an ideal of experimental design which when used exclusively is inappropriate for their research needs because (a) ID research involves a multitude of variables, many of which are difficult to quantify; (b) the variables in which instructional developers are interested cannot be meaningful isolated from a 'real world' context; (c) the role of most instructional developers does not allow them to control many of the critical variables operating in "real world" instruction. Persistence in attempting to retain the characteristics of this traditional experimental model leads to (a) research in distorted environments yielding results of questionable external validity and (b) research in natural environments without methodological safeguards of internal validity.

AN ALTERNATIVE--NATURALISTIC INQUIRY

The problems with traditional experimental design as described in the previous section are not unique to researchers in instructional development and education. Other disciplines that seek to explain and predict complex, human phenomena which cannot be legitimately "broken up...into a temporal chain of events all connected by determinate 'casual' relations" (Rapoport & Horvath, 1968), have faced similar difficulties. Researchers in the fields of anthropology, sociology, psychology, and evaluation have developed and refined a research perspective and accompanying methodology that has great promise for instructional development research--naturalistic inquiry.

Characterizing the naturalistic investigator (NI), Guba (1978) wrote:

> He is concerned with description and understanding; thus he begins as might an anthropologist learning about a strange culture, by immersing himself in it, with as open a mind as possible, and permitting impressions to emerge. As impressions are formed he checks them out by various means, e.g., "triangulation," testing one source against another until he is satisfied that his interpretation is valid...The naturalist might claim his model to be investigative journalism, in which "truth" can be elicited from partial and even

> reluctant sources by processes of cross-checking, triangulation, and recycling until convergence is achieved.

It may be useful here to list separately and discuss briefly the characteristics of naturalistic inquiry which distinguish it from the well-known classical experimental approach.

Absence of Prior Assumptions

Naturalistic inquiry is characterized by a relative absence of a priori hypotheses and decisions regarding the importance of variables and outcomes. Rather, the investigator enters the study with only tentative notions about what might be important, forces himself to be open to all aspects of the phenomena before him, and then allows the relevant outcomes and most-powerfully explanatory variables to emerge as the study progresses. Another way of viewing this approach to inquiry is as Brunswick (1956) called it, "a successive omission" as opposed to "a successive accumulation" of factors. The investigator in a naturalistic study deals initially with an undisturbed phenomenon having as the goal of his inquiry the elimination of irrelevant factors and, ultimately, a parsimonious explanation of causes and effects. An experimentalist, on the other hand, will seek to explain a complex phenomenon by selecting a relatively few variables in advance and testing a hypothetical relationship among them, believing that an accumulation of such tests will eventually lead to a confirmed explanation of the total undisturbed phenomenon.

Theoretical Sampling

This term has been given by Glaser and Strauss (1967) to the process of data collection used by NIs (Naturalistic Investigators). The process is one "whereby the analyst jointly collects, codes, and analyzes his data and decides what data to collect next and where to find them, in order to develop his theory as it emerges" (Glaser & Strauss, 1967). In other words, unlike the experimentalist, the naturalistic investigator cannot decide in advance every piece of data that ought to be collected and by what methods. This condition is necessitated by the relative absence of a priori assumptions and hypotheses essential to naturalistic investigations.

Comparative Analysis of Groups

Naturalistic inquiry is characterized by the careful comparison of naturally-existing human groups selected to vary in degrees of similarity. Unlike the research to which we have become accustomed, wherein subjects are selected from some available, sketchily-described population meeting general requirements, naturalistic research entails the close examination of intact groups carefully chosen to shed light on the problem under study. If the inquiry is directed toward hypothesis or theory generation, these comparisons help define the variables or theoretical elements and their relationships. Here the investigator is seeking to determine whether a characteristic observed in one group is ideosyncratic, or, on the other hand, an explanatory variable which cuts across other groups. If the inquiry is verification-oriented, systematic comparison across groups strengthens the external validity of the conclusions. By comparison, traditional researchers are in a greater haste to publish results based upon experimentation with a single group drawn from a hazily-defined population.

"Real-World" Settings

As mentioned earlier, naturalistic investigators confront undisturbed behavior and environments for the purpose of generating analyzable data from them. The writings of Barker (1965) and Guba (1978) are useful here. Barker (1965) describes the traditional role of the experimenter as that of "operator", i.e., one who dominates the experimental situation by "regulating input, and/or influencing interior conditions, and/or constraining output" as well as serving as translator of the phenomena into data. Quoting Guba's (1978) examples:

> The (experimental) investigator decides both upon the nature of the independent variables and how they shall be manipulated (e.g., subjects' IQs shall be divided into three ranges for low, medium, and high intelligence), and upon the nature of permissible outputs (e.g., number of nonsense syllables that can be recalled immediately and ten minutes following memorization).

In contrast to these familiar roles, NIs manipulate neither independent nor dependent variables. Their interest is in analyzing and explaining naturally-occurring phenomena.

Multiple Data Sources

Naturalistic investigators seek out more sources of data bearing on their research problem than do traditional experimentalists. NIs are quite flexible in their definition of acceptable data and are willing to pursue any information which may shed light on their research problem. For example, whereas a traditional experimentalist will decide well in advance what his quantifiable, dependent variable measures are to be, a naturalistic investigator may use interview data, observation logs, documentation, records, and conversation as well as standardized instruments, tests, questionnaires, specific behavioral indicators, or other more readily-quantified data sources.

The inclusion of multiple data-sources in naturalistic inquiry arises from two sources. One is the "real-world" setting in which the investiga-

tion is conducted. The NI is interested in all the factors in the "real world" which bear upon the problem he is studying; a wide investigative net is required in order to allow all of those factors to emerge. The second reason why multiple data-sources are a characteristic of naturalistic investigations has to do with the previously-mentioned safeguard of internal validity. The validity of the NI's explanation of events is strengthened by confirmation from a variety of sources. The term for this technique of confirming validity through the cross-checking of several sources is "triangulation." Drawing an insightful parallel with traditional research, Guba (1978) says of triangulation, "As statistical means are more stable than single scores, so triangulated conclusions are more stable than any of the vantage points from which they were triangulated."

Observation and Description

Because of its focus upon complex phenomena, much of the data relevant to a naturalistic inquiry can only be had through observation; the test scores and psychometrically-polished attitude assessments so essential to traditional inquiry are not rich enough in subtle detail to serve as the major data source of a naturalistic investigation. As Cronbach (1975) has noted, "There are more things in heaven and earth than are dreamt of in our hypotheses, and our observations should be open to them." These comments should not be taken to mean that NIs would not be interested in test-score data relevant to the area of their study. As the previous section on multiple data-sources explains, NIs are interested in any source of information which may shed light on the research problem. Even a constricted data source can be helpful in combination with information from other sources. The difference here between NIs and traditionalists is that NIs would not be content with the reduction of a complex phenomenon to a single quantitative measure--a frequent practice among experimentalists. Hence the value placed by NIs on detailed observation logs and thorough descriptions of events and their participants.

Value Accorded Subjects' Impressions

In contrast with traditional experimentalists, NIs are usually interested in the opinions of subjects regarding the phenomenon under investigation. Traditionalists are inclined to regard such self-reported data as unreliable or "soft," and this attitude has a decided impact upon the nature of their research. In Snow's (1974) words, "Unfortunately, the traditional emphasis on systematic factorial design has, perhaps unwittingly, fostered concentration on the boundaries of an experiment to the neglect of events occurring within the cells between pretest and posttest." In other words, the disdain of "soft" data has encouraged the reduction of phenomena to those few assessments which can "reliably" be made. The NI, on the other hand, tends to see subjects' self-reported impressions as one more source of information to be triangulated against other sources. The more sources consulted, the more confidence he can place in his explanation.

Value Accorded Deviant Cases

NIs are keenly interested in "deviant cases," i.e., those instances of a phenomenon that do not "fit" their proposed explanation. The reason is that these cases help the investigator to refine his explanations and/or to determine the extent of their generalizatility. Contrast this with the typical experimental design wherein the mean is the foundation; many cases are aggregated, mitigating the influence of deviance and making the examination of any individual case unlikely.

THE APPLICABILITY OF NATURALISTIC INQUIRY TO ID RESEARCH

As previously stated, there are several characteristics of instructional development and of instructional developers which suggest the usefulness of naturalistic inquiry as a research strategy.

Problem Solving in the "Real World"

Instructional development is an applied activity. Most professionals in the field operate in the "real world"; their schedules leave them little time for work on problems independent of their applied activities. This situation leaves most developers with few opportunities to conduct controlled experimental research. However, it does provide them with a valuable asset in conducting naturalistic inquiry--access to "real-world" classrooms. Gaining access to natural situations is a sizable problem for NIs in other fields. In this regard, practicing developers enjoy an advantage in educational research that even many professors of instructional technology do not have, i.e., access to intact classes or other learning situations usually varying in content, instructional strategy, instructor, etc. Thus access to "real-world" settings and the comparative analysis of groups, so important in naturalistic inquiry, are facilitated by the nature of the instructional developer's work.

Long-Term Involvement in Natural Learning Situations

Not only do instructional developers typically have access to intact classooms, their involvement with a given instructional problem is frequently of long duration. Unlike naturalistic investigators in anthropology or sociology, studying phenomena which they can visit only periodically, developers have the advantage of prolonged contact with learning situations. This characteristic of their work facilitates the in-depth involvement and com-

parative analysis of successive groups which foster sound naturalistic inquiry.

Systemic Predisposition

Most developers are philosophically biased to view events as multiply determined. They are accustomed to examining many variables which impinge upon a learning situation. Their initial perspective on a problem tends to be broad, and most have been sensitized to the importance of attending to unanticipated outcomes. These perspectives--an outgrowth of the solving of complex, 'real-world', problems--are invaluable in the conduct of a naturalistic investigation. As previously mentioned, many graduates of advanced-degree programs in education other than in ID do not have the orientation--or the skills--to engage in naturalistic studies.

Interpersonal and Analytical Skills

In addition to the systemic orientation described above, instructional developers also typically have a number of uncommon skills essential to successful naturalistic inquiry. Just a few of the fundamental skills required are described by Wolf and Tymitz (1977):

> Some of the more basic skills include listening, question asking, flexibility, coping with ambiguity and resiliency. Other skills more difficult to describe involve the ability to think spontaneously, to analyze and synthesize data in situ so as to eliminate or illuminate inferences, to avoid moral pigeonholing, to understand self-prejudices, to take useful field notes and accurately summarize information, to learn the value of comprehensive and frequent debriefing sessions, to become facile in conversing with people, and to learn how to move through natural settings with ease.

These skills might be loosely categorized as interpersonal skills and analytical skills. Most successful instructional developers have learned to interact well with others under difficult circumstances. The delicate interpersonal processes--such as contract negotiation and client evaluation--demanded by ID are excellent preparation for a naturalistic investigator who must remain non-threatening and unobtrusive. Listening and asking questions are two of the developer's most powerful tools. Just as important are the analytical skills most developers have acquired. They are typically adept at entering an on-going situation and quickly making sense of it. Their abilities to work with subject-matter experts from a diversity of fields suggest skill in sorting rapidly the essential from the peripheral. At their best, instructional developers are empathic and open, yet objective and thoroughly analytical. It is precisely this rare combination of qualities that is essential in a naturalistic investigator.

IMPLICATIONS OF NATURALISTIC INQUIRY FOR RESEARCH IN INSTRUCTIONAL DEVELOPMENT

The foregoing discussion of naturalistic inquiry suggests that some changes might profitably be made in the conduct of instructional development research. Some of these implications are listed and explored below.

Widen Methodological Horizons

Instructional developers and educational researchers in general need to be familiar with a wider range of research strategies than is currently the case. Knowledge only of experimental procedures restricts in several ways the questions an investigator is likely to ask. Because an experimentalist requires well-defined a priori variables, he will very likely seek further exploration of variables already defined in the literature rather than confronting a situation anew and allowing alternative variables and explanations to emerge. The exclusion of questions involving variables which are difficult to quantify has already been noted. The premature reduction of natural situations to a few manipulated variables and constrained outcomes is encouraged by our discipline's fixation upon experimental research techniques.

A knowledge of naturalistic methods, however, gives us a critical perspective from which to view educational research. Even traditional research designs can be modified to reflect naturalistic concerns. If a researcher approaches his problem with a naturalistic perspective, he is sensitized to the complexity of the 'real world' which all educational research ultimately seeks to explain. Consequently, a whole range of qualitative research methods whose unique benefits are seldom realized in educational research is legitimized. Interest in unanticipated outcomes is increased. Values ascribed to variables take on greater subtlety. The merit of multivariate studies with their greater capacity to handle complexity becomes apparent. Greater familiarity with naturalistic inquiry and its rationale among educationists generally would encourage a more critical consumption of research findings and consequently push educational research toward greater sophistication, i.e., methodological eclecticism.

Expand the Research Training of Graduate Students

One of the most effective ways to broaden the research perspective of our field in the long run is to modify the training of our graduate students. Most instructional developers need only to reflect upon their own graduate research courses to confirm their experimental focus. Instead of being a geniune, comprehensive intro-

duction to knowledge creation, the first research course is too often a survey course in experimental design. Basic statistics courses are required but superficially conceived; students are taught to plug numbers into formulas rather than to exercise judgment in the appropriate use of statistics to answer research questions. Without a larger context within which to place this information, students are left with the impression that experi mental design and statistical analysis are synonymous with research.

This is certainly not to suggest that experimental design and statistics be eliminated from graduate training. What appears to be advisable is the placing of these research strategies within a more comprehensive program which includes qualitative methods and naturalistic perspectives as well. Only when students are comfortable with the full range of research strategies available to scholars will they be able to choose those which are most appropriate to their research problem.

Be More Demanding of the Research Community

As consumers of research findings, instructional developers should advocate higher quality in educational research. We should object to the publishing of simplistic studies with 'stripped down' variables in the journals which we support. For example, when learning is the outcome of interest in a study, we should not accept low-level memorization tasks as an operationalization of learning. Our dissatisfaction should be communicated to journal editors; methodological issues should be raised when conference research presentations are screened and evaluated.

This role of advocate, however, is obviously predicated upon our own comprehensive knowledge of research methodologies. It would be unwise for developers to become advocates of any one methodology. In keeping with one of the distinguishing characteristics of our field, our position should be the advocacy of appropriateness in research strategy as in instructional strategy. As the previous two sections indicate, we also face the challenge of expanding our own research arsenal and communicating this broader perspective to our students.

Assume Research Responsibilities

As many of the previous sections of this chapter have suggested, practicing instructional developers should be conducting research in the field rather than relying entirely upon the efforts of educational psychologists and those who teach but do not practice instructional development. Naturalistic inquiry would seem to be an appropriate and feasible strategy for investigating some of our research questions. However, in order to become effective naturalistic researchers, developers must assume two responsibilities. The first is to educate themselves about the qualitative techniques involved. While most developers have some of the prerequisite skills and the opportunities to apply them, we must fully appreciate the rigorous requirements of naturalistic research. This chapter has been only a brief introduction to a complex and demanding research methodology which has an extensive literature of its own. Care must be taken that the naturalist's qualitative methods not be viewed as "research for those who hate statistics;" the integrity of the methodology must be safeguarded.

The second responsibility that developers who would be researchers must assume is that of familiarizing their colleagues in education with naturalistic methods. The reality is that most journal editors are biased in favor of classical experimental studies. Most editors are methodologically conservative and do not want to be accused of having published research that some critical readers might think is "subjective" or "soft." Advocates of naturalistic study will need to be articulate spokespersons for qualitative research when it is appropriate, and knowledgeable critics of traditional methods.

SUMMARY

The field of instructional development has a research problem, i.e., research does not seem to provide us with many answers. Though no one would be foolish enough to suggest that the problem is a simple one with a single solution, it has been the thesis of this chapter that a narrow knowledge of research methods among developers and educational researchers in general is part of the problem. The consequences of education's fixation on orthodox experimental methods are manifold. One of the most important is that learning situations tend not to be investigated in their complex, natural state. Another consequence is that practicing developers have withdrawn from active participation in research, relying upon academicians in their own and related fields. Naturalistic inquiry methods would seem to be both appropriate for many of our research questions and particularly well suited to the instructional developer's role. However, the successful integration of these unorthodox methods into the mainstream of educational research is predicated upon the developer's ability to employ the methodology with integrity and to articulate its appropriate place in relation to other research methods. Blind advocacy of any one method is as foolish in research design as in instructional design. Quoting J.A. Easley, Jr. (1973):

> One finds many different approaches to research and many different criteria for acceptable research within any well-developed science. The most important question for a research discipline, however, is how to find the most promising approach for research on a problem that is not being solved

satisfactorily by conventional techniques.

Instructional developers--perhaps more than any other group in education--should be able to make that point.

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